CLAIMS

It is claimed:

1. A method of generating processed traffic, the method comprising

providing a test scenario for generating a stream of encrypted traffic

generating data units in accordance with the test scenario at a first rate

encrypting the data units at a second rate

encapsulating the data units at a third rate

holding the encapsulated data units

releasing and transmitting at a fourth rate the held data units as the stream of encrypted traffic

wherein the fourth rate is greater than a sum of the first rate, the second rate and the third rate.

2. The method of generating processed traffic of claim 1 wherein the test scenario specifies that the traffic should be sent to at least one host within a receiving subnet protected by a first gateway having an address, the method further comprising

providing a holding gateway having an address configured as protecting the receiving subnet

transmitting the encrypted traffic to the address of the first gateway

diverting the encrypted traffic from the first gateway to the holding gateway.

the holding gateway capturing the encrypted traffic, and causing the captured traffic to be stored

when a sufficient amount of stored traffic has been stored

removing the holding gateway

releasing the captured traffic, whereby the released traffic is transmitted to the first gateway.

3. The method of generating processed traffic of claim 2 wherein the holding gateway has an alias address which is the same as the address of the first gateway.

4. The method of generating processed traffic of claim 2 wherein the test scenario specifies that the traffic should be sent from at least one host within a generating subnet, the method further comprising

providing an encrypting gateway having an address configured as protecting the generating subnet

the encrypting gateway

encrypting the traffic

encapsulating the encrypted traffic to go to the first gateway.

5. A method of generating processed traffic, the method comprising

providing traffic for transmission to a first endpoint, the traffic comprising plural data units

processing the provided traffic

holding the processed traffic until a predefined amount of processed traffic has accumulated

releasing the held traffic for transmission to the first endpoint.

6. The method of generating processed traffic of claim 5 wherein the processing comprises encrypting at least part of the data units.

7. The method of generating processed traffic of claim 5 wherein the predefined amount A is determined according to

A >= r * t, wherein

r is the rate of transmission

t is a length in time of the transmission.

8. The method of generating processed traffic of claim 5 further comprising transmitting the held traffic at a first rate, wherein the first rate is greater than a second rate for providing the traffic and processing the provided traffic.

9. The method of generating processed traffic of claim 5 wherein the processing comprises application-layer processing.

10. A method of generating processed traffic, the method comprising

receiving traffic at a first rate, the traffic comprising plural data units, the data units including an address and a payload

holding the received traffic

decrypting the held traffic

analyzing the decrypted traffic

wherein the decrypting and analyzing is performed at a second rate which is less than the first rate.

11. An apparatus for generating processed traffic, the apparatus comprising:

a processor

a memory

wherein the processor and the memory comprise circuits and software for

receiving a test scenario for generating a stream of encrypted traffic

generating data units in accordance with the test scenario at a first rate

encrypting the data units at a second rate

encapsulating the data units at a third rate

holding the encapsulated data units

releasing and transmitting at a fourth rate the held data units as the stream of encrypted traffic

wherein the fourth rate is greater than a sum of the first rate, the second rate and the third rate.

12. The apparatus for generating processed traffic of claim 11 wherein the test scenario specifies that the traffic should be sent to at least one host within a receiving subnet protected by a first gateway having an address, the processor and the memory comprising circuits and software further for

providing a holding gateway having an address configured as protecting the receiving subnet

transmitting the encrypted traffic to the address of the first gateway

diverting the encrypted traffic from the first gateway to the holding gateway.

the holding gateway capturing the encrypted traffic, and causing the captured traffic to be stored

when a sufficient amount of stored traffic has been stored

removing the holding gateway

releasing the captured traffic, whereby the released traffic is transmitted to the first gateway.

13. The apparatus for generating processed traffic of claim 12 wherein the holding gateway has an alias address which is the same as the address of the first gateway.

14. The apparatus for generating processed traffic of claim 12 wherein the test scenario specifies that the traffic should be sent from at least one host within a generating subnet, the processor and the memory comprising circuits and software further for

providing an encrypting gateway having an address configured as protecting the generating subnet

the encrypting gateway

encrypting the traffic

encapsulating the encrypted traffic to go to the first gateway.

15. An apparatus for generating processed traffic, the apparatus comprising:

a processor

a memory

wherein the processor and the memory comprise circuits and software for

providing traffic for transmission to a first endpoint, the traffic comprising plural data units

processing the provided traffic

holding the processed traffic until a predefined amount of processed traffic has accumulated

releasing the held traffic for transmission to the first endpoint.

16. The apparatus for generating processed traffic of claim 15 wherein the processing comprises encrypting at least part of the data units.

17. The apparatus for generating processed traffic of claim 15 wherein the predefined amount A is determined according to

A >= r * t, wherein

r is the rate of transmission

t is a length in time of the transmission.

18. The apparatus for generating processed traffic of claim 15, the processor and the memory comprising circuits and software further for transmitting the held traffic at a first rate, wherein the first rate is greater than a second rate for providing the traffic and processing the provided traffic.

19. The apparatus for generating processed traffic of claim 15 wherein the processing comprises application-layer processing.

20. An apparatus for generating processed traffic, the apparatus comprising:

a processor

a memory

wherein the processor and the memory comprise circuits and software for

receiving traffic at a first rate, the traffic comprising plural data units, the data units including an address and a payload

holding the received traffic

decrypting the held traffic

analyzing the decrypted traffic

wherein the decrypting and analyzing is performed at a second rate which is less than the first rate.

21. A storage medium having instructions stored thereon which when executed by a processor cause the processor to generate processed traffic comprising:

receiving a test scenario for generating a stream of encrypted traffic

generating data units in accordance with the test scenario at a first rate

encrypting the data units at a second rate

encapsulating the data units at a third rate

holding the encapsulated data units

releasing and transmitting at a fourth rate the held data units as the stream of encrypted traffic

wherein the fourth rate is greater than a sum of the first rate, the second rate and the third rate.

22. The storage medium of claim 21 wherein the test scenario specifies that the traffic should be sent to at least one host within a receiving subnet protected by a first gateway having an address, the instructions further for

providing a holding gateway having an address configured as protecting the receiving subnet

transmitting the encrypted traffic to the address of the first gateway

diverting the encrypted traffic from the first gateway to the holding gateway.

the holding gateway capturing the encrypted traffic, and causing the captured traffic to be stored

when a sufficient amount of stored traffic has been stored

removing the holding gateway

releasing the captured traffic, whereby the released traffic is transmitted to the first gateway.

23. The storage medium of claim 22 wherein the holding gateway has an alias address which is the same as the address of the first gateway.

24. The storage medium of claim 22 wherein the test scenario specifies that the traffic should be sent from at least one host within a generating subnet, the instructions further for

providing an encrypting gateway having an address configured as protecting the generating subnet

the encrypting gateway

encrypting the traffic

encapsulating the encrypted traffic to go to the first gateway.

25. A storage medium having instructions stored thereon which when executed by a processor cause the processor to generate processed traffic comprising:

providing traffic for transmission to a first endpoint, the traffic comprising plural data units

processing the provided traffic

holding the processed traffic until a predefined amount of processed traffic has accumulated

releasing the held traffic for transmission to the first endpoint.

26. The storage medium of claim 25 wherein the processing comprises encrypting at least part of the data units.

27. The storage medium of claim 25 wherein the predefined amount A is determined according to

A >= r * t, wherein

r is the rate of transmission

t is a length in time of the transmission.

28. The storage medium of claim 25, the instructions further for transmitting the held traffic at a first rate, wherein the first rate is greater than a second rate for providing the traffic and processing the provided traffic.

29. The storage medium of claim 25 wherein the processing comprises application-layer processing.

30. A storage medium having instructions stored thereon which when executed by a processor cause the processor to generate processed traffic comprising:

receiving traffic at a first rate, the traffic comprising plural data units, the data units including an address and a payload

holding the received traffic

decrypting the held traffic

analyzing the decrypted traffic

wherein the decrypting and analyzing is performed at a second rate which is less than the first rate.

31. A computing device to generate processed traffic, the computing device comprising:

a processor

a memory coupled with the processor

a storage medium having instructions stored thereon which when executed cause the computing device to perform actions comprising

receiving a test scenario for generating a stream of encrypted traffic

generating data units in accordance with the test scenario at a first rate

encrypting the data units at a second rate

encapsulating the data units at a third rate

holding the encapsulated data units

releasing and transmitting at a fourth rate the held data units as the stream of encrypted traffic

wherein the fourth rate is greater than a sum of the first rate, the second rate and the third rate.

32. The computing device to generate processed traffic of claim 31 wherein the test scenario specifies that the traffic should be sent to at least one host within a receiving subnet protected by a first gateway having an address, the instructions further for

providing a holding gateway having an address configured as protecting the receiving subnet

transmitting the encrypted traffic to the address of the first gateway

diverting the encrypted traffic from the first gateway to the holding gateway.

the holding gateway capturing the encrypted traffic, and causing the captured traffic to be stored

when a sufficient amount of stored traffic has been stored

removing the holding gateway

releasing the captured traffic, whereby the released traffic is transmitted to the first gateway.

33. The computing device to generate processed traffic of claim 32 wherein the holding gateway has an alias address which is the same as the address of the first gateway.

34. The computing device to generate processed traffic of claim 32 wherein the test scenario specifies that the traffic should be sent from at least one host within a generating subnet, the instructions further for

providing an encrypting gateway having an address configured as protecting the generating subnet

the encrypting gateway

encrypting the traffic

encapsulating the encrypted traffic to go to the first gateway.

35. A computing device to generate processed traffic, the computing device comprising:

a processor

a memory coupled with the processor

a storage medium having instructions stored thereon which when executed cause the computing device to perform actions comprising

receiving traffic for transmission to a first endpoint, the traffic comprising plural data units

processing the provided traffic

holding the processed traffic until a predefined amount of processed traffic has accumulated

releasing the held traffic for transmission to the first endpoint.

36. The computing device to generate processed traffic of claim 35 wherein the processing comprises encrypting at least part of the data units.

37. The computing device to generate processed traffic of claim 35 wherein the predefined amount A is determined according to

A >= r * t, wherein

r is the rate of transmission

t is a length in time of the transmission.

38. The computing device to generate processed traffic of claim 35, the instructions further for transmitting the held traffic at a first rate, wherein the first rate is greater than a second rate for providing the traffic and processing the provided traffic.

39. The computing device to generate processed traffic of claim 35 wherein the processing comprises application-layer processing.

40. A computing device to generate processed traffic, the computing device comprising:

a processor

a memory coupled with the processor

a storage medium having instructions stored thereon which when executed cause the computing device to perform actions comprising

receiving traffic at a first rate, the traffic comprising plural data units, the data units including an address and a payload

holding the received traffic

decrypting the held traffic

analyzing the decrypted traffic

wherein the decrypting and analyzing is performed at a second rate which is less than the first rate.